

WHAT IS CLAIMED IS:

1. A network administration method for provisioning logical configuration links for at least two network devices through a dedicated graphical user interface form, the method comprising:

selecting a network device having at least one network interface through the dedicated graphical user interface form;

determining local interface and next neighbor information for the network device;

determining whether the local interface and next neighbor information is associated with a logical configuration link stored among a plurality of logical configuration links in a logical link database;

creating a new logical configuration link when the local interface and next neighbor information is not associated with any of the logical configuration links in the logical link database;

storing the new logical configuration link in the logical link database;

validating the new logical configuration link;

sending the new logical configuration link to the network device; and

displaying a graphical representation of the new logical configuration link on a display device.

2. The method of claim 1, wherein the step of creating a new logical configuration link further comprises the steps of:

selecting a link type;

selecting a link numbering type for the new logical configuration link;

selecting a link application for the new logical configuration link;

selecting a sub layer interface type for the new logical configuration link;

creating a first endpoint for the new logical configuration link; and

creating a second endpoint for the new logical configuration link.

3. The method of claim 2, wherein the step of selecting the link type further comprises the step of:

selecting the link type from among a group consisting of: point-to-point, point-to-IP, and point-to-subnet.

4. The method of claim 2, wherein the step of selecting a link numbering type further comprises the step of:

5 selecting the link numbering type from a group consisting of: a numbered type and an unnumbered type.

5. The method of claim 2, wherein the step of selecting a link application further comprises the step of:

10 selecting the link application from a group consisting of: Internet Protocol Forwarding, Multi-Protocol Label Switching and Internet Protocol Forwarding, and Multi-Protocol Label Switching.

6. The method of claim 2, wherein the step of selecting a sub layer interface type further comprises the step of:

selecting the sub layer interface type from a group consisting of: Packet Over Sonet, Asynchronous Transfer Mode, and GigEthernet.

7. The method of claim 1, further comprising the step of:
modifying a logical configuration link in the logical link database.

8. The method of claim 1, further comprising the step of:
deleting a logical configuration link in the logical link database.

25 9. Apparatus for provisioning logical configuration links comprising:
a logical link database for storing logical configuration links;
a processing system coupled to the logical link database for accessing the logical link database; and
a display device coupled to the processing system for displaying a graphical user
30 interface form comprising a graphical representation of a logical configuration link.

10. The apparatus of claim 9 wherein the display device provides an ability to select a network device having at least one network interface through the graphical user interface form.

11. The apparatus of claim 9 wherein the processing system determines local interface and next neighbor information for the network device.

12. The apparatus of claim 11 wherein the processing system determines whether the local interface and next neighbor information is associated with one of the logical configuration links stored in the logical link database.

13. The apparatus of claim 12 wherein the processing system creates a new logical configuration link when the local interface and next neighbor information is not associated with any of the logical configuration links stored in the logical link database.

14. The apparatus of claim 13 wherein the processing system causes the new logical configuration link to be stored in the logical link database.

15. The apparatus of claim 14 wherein the processing system validates the new logical configuration link.

16. The apparatus of claim 15 wherein the processing system causes the new logical configuration link to be sent to the network device.